



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



Photometric Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-2002

Prepared For
Auroralight Inc

2742 Loker Avenue West
Carlsbad
CA, 92010
United States

Catalog Number

HPL8-3-30

Order Number

11745044

Test Number

11745044.24

Test Date

2017-05-18

Prepared By

Javier Caban, Technician

Approved By

Tiffany Hamm, Project Handler

The results contained in this report pertain only to the tested sample.
This report shall not be reproduced, except in full, without written approval of Underwriters Laboratories.
This report must not be used by the client to claim product certification, approval, or endorsement by
NVLAP, NIST, or any agency of the Federal Government.



Luminaire Description: Conical 8" copper shade with clear glass lens, cylindrical copper stem and brass base
Lamp: 64 white LEDs
Mounting: Path/Area
Ballast/Driver: Integrated

Luminaire



Luminaire Characteristics

Luminous Diameter: 8.00 in.

Summary of Results

Roadway Classification: Type V, Very Short
Cutoff Classification: Semicutoff
BUG Rating: B0 U1 G0

Test Conditions

Test Temperature: 25.7 °C
Voltage: 12.00 VAC
Current: 0.4890 A
Power: 3.282 W
Power Factor: 0.559
Frequency: 60 Hz
Current THD: 79.2 %

Tested in 30 planes left side, 30 planes right side, left and right averaged
Vertical test increments are 2.5 degrees
Test distance exceeds five times the greatest luminous opening of luminaire

Laboratory results may not be representative of field performance
Ballast factors have not been applied



Distribution - Goniophotometer

Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.7 °C	12.00 VAC	0.4890 A	3.282 W	0.559	60 Hz	79.2 %

Summary of Results

Spacing Criteria

0-180: 1.27
90-270: 1.27

Total Lumen Output:

169.0 Lumens

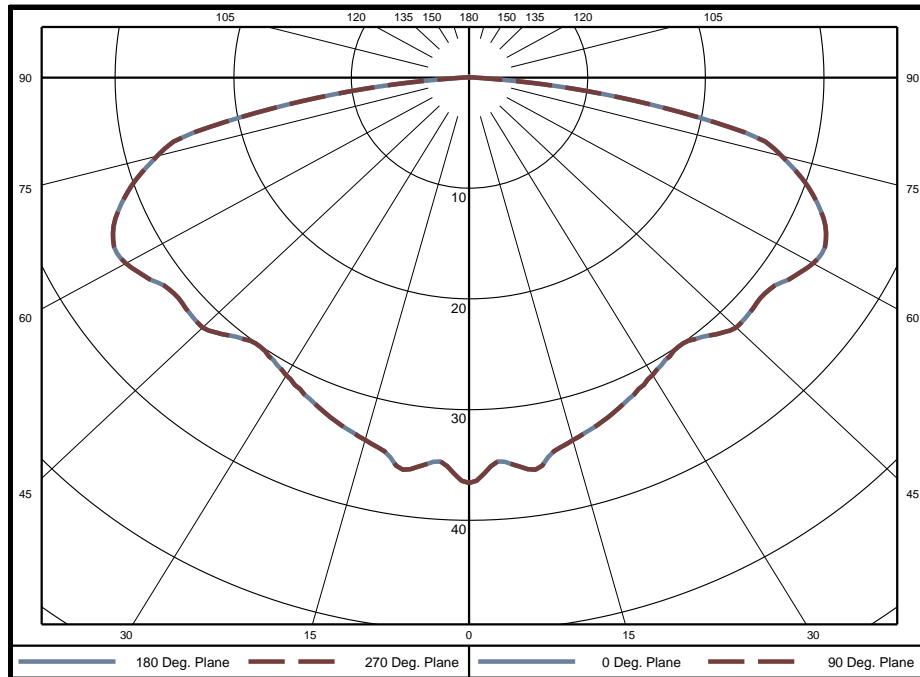
Luminaire Efficacy:

51.5 lm/w

Maximum Candela:

37 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.84	0.5%	60-65	16.36	9.7%	120-125	0.02	0.0%
5-10	2.54	1.5%	65-70	16.32	9.7%	125-130	0.02	0.0%
10-15	4.09	2.4%	70-75	15.27	9.0%	130-135	0.02	0.0%
15-20	5.52	3.3%	75-80	12.85	7.6%	135-140	0.02	0.0%
20-25	6.82	4.0%	80-85	6.27	3.7%	140-145	0.02	0.0%
25-30	7.97	4.7%	85-90	0.95	0.6%	145-150	0.01	0.0%
30-35	9.00	5.3%	90-95	0.19	0.1%	150-155	0.01	0.0%
35-40	10.08	6.0%	95-100	0.07	0.0%	155-160	0.01	0.0%
40-45	11.60	6.9%	100-105	0.04	0.0%	160-165	0.01	0.0%
45-50	12.88	7.6%	105-110	0.03	0.0%	165-170	0.01	0.0%
50-55	13.84	8.2%	110-115	0.03	0.0%	170-175	0.00	0.0%
55-60	15.25	9.0%	115-120	0.02	0.0%	175-180	0.00	0.0%

Zone	Lumens	% of Luminaire
0-40	47	27.7%
0-60	100	59.4%
0-90	168	99.7%
90-180	1	0.3%



Candela Tabulation
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
	0	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63	36.63
	5	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85	34.85
	10	35.61	35.61	35.61	35.61	35.61	35.61	35.61	35.61	35.61	35.61	35.61	35.61	35.61	35.61	35.61
	15	33.91	33.91	33.91	33.91	33.91	33.91	33.91	33.91	33.91	33.91	33.91	33.91	33.91	33.91	33.91
	20	33.04	33.04	33.04	33.04	33.04	33.04	33.04	33.04	33.04	33.04	33.04	33.04	33.04	33.04	33.04
	25	32.01	32.01	32.01	32.01	32.01	32.01	32.01	32.01	32.01	32.01	32.01	32.01	32.01	32.01	32.01
	30	31.03	31.03	31.03	31.03	31.03	31.03	31.03	31.03	31.03	31.03	31.03	31.03	31.03	31.03	31.03
	35	30.15	30.15	30.15	30.15	30.15	30.15	30.15	30.15	30.15	30.15	30.15	30.15	30.15	30.15	30.15
	40	30.60	30.60	30.60	30.60	30.60	30.60	30.60	30.60	30.60	30.60	30.60	30.60	30.60	30.60	30.60
	45	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94	31.94
	50	31.72	31.72	31.72	31.72	31.72	31.72	31.72	31.72	31.72	31.72	31.72	31.72	31.72	31.72	31.72
	55	32.26	32.26	32.26	32.26	32.26	32.26	32.26	32.26	32.26	32.26	32.26	32.26	32.26	32.26	32.26
	60	33.58	33.58	33.58	33.58	33.58	33.58	33.58	33.58	33.58	33.58	33.58	33.58	33.58	33.58	33.58
	65	33.30	33.30	33.30	33.30	33.30	33.30	33.30	33.30	33.30	33.30	33.30	33.30	33.30	33.30	33.30
	70	30.92	30.92	30.92	30.92	30.92	30.92	30.92	30.92	30.92	30.92	30.92	30.92	30.92	30.92	30.92
	75	27.36	27.36	27.36	27.36	27.36	27.36	27.36	27.36	27.36	27.36	27.36	27.36	27.36	27.36	27.36
	80	18.32	18.32	18.32	18.32	18.32	18.32	18.32	18.32	18.32	18.32	18.32	18.32	18.32	18.32	18.32
	85	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05	5.05
	90	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
	95	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
	100	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	105	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
	110	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	115	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	120	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	125	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	130	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	135	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
	140	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	145	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	150	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	155	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	160	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	165	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	170	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	175	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
	180	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06

Average Luminance (cd/m²)

Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	1130	1130	1130
45	1393	1393	1393
55	1734	1734	1734
65	2430	2430	2430
75	3260	3260	3260
85	1786	1786	1786



Utilization of Lumens - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																	
Ceiling Cavity Reflectance	80				70				50			30			10		
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **																
0	201	201	201	201	196	196	196	196	187	187	187	179	179	179	172	172	172
1	178	167	157	149	173	163	154	146	155	148	141	148	142	137	142	137	133
2	157	140	125	113	152	136	123	111	130	118	108	124	114	106	118	110	103
3	140	119	102	88	136	116	100	87	110	97	86	105	94	84	100	91	82
4	127	103	85	71	122	100	84	71	96	81	70	91	79	68	87	76	67
5	115	90	72	59	111	88	71	59	84	69	58	80	67	57	77	66	56
6	106	80	63	50	102	78	62	50	75	60	49	72	59	49	69	57	48
7	98	72	55	43	94	70	54	43	67	53	43	65	52	42	62	51	42
8	90	65	49	38	88	64	49	38	61	47	38	59	46	37	57	45	37
9	84	59	44	34	82	58	44	34	56	43	33	54	42	33	52	41	33
10	79	55	40	30	77	54	40	30	52	39	30	50	38	30	48	37	29

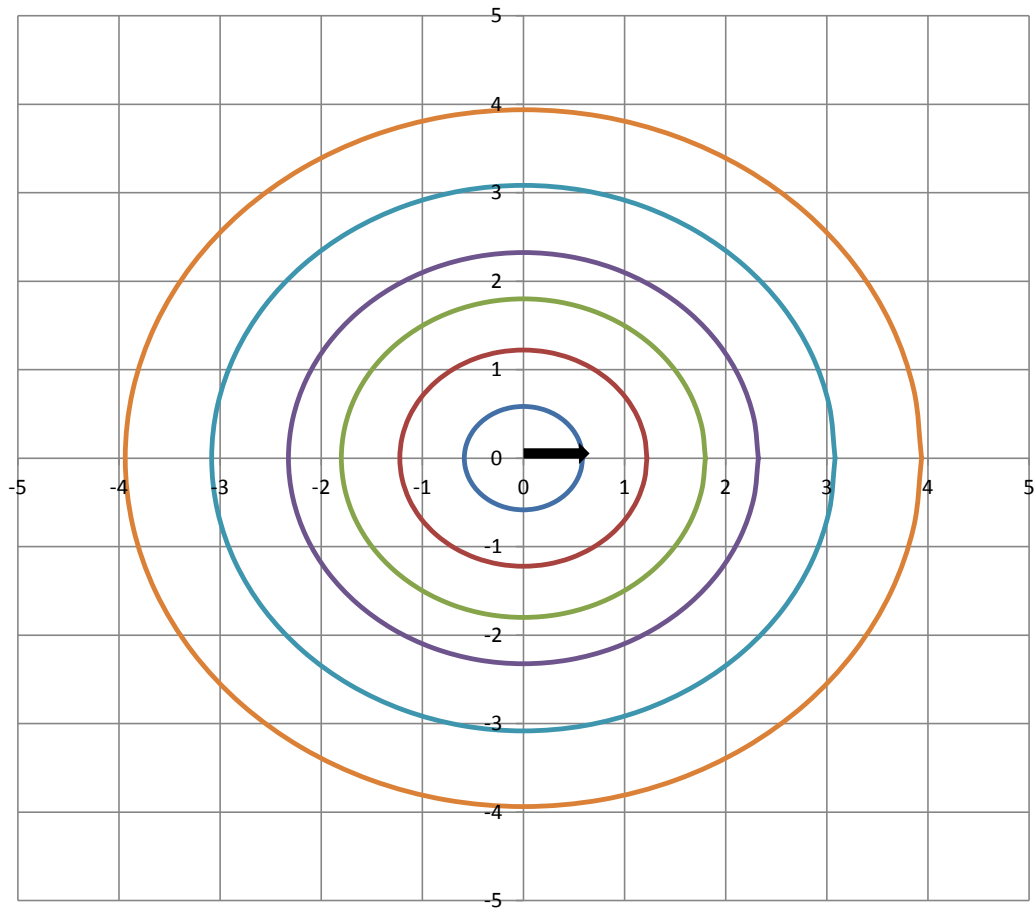
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	36.63 Candela
Central Cone Intensity:	36 Candela
Beam Flux:	161.3 Lumens
Beam Angle (0-180):	160.0 Degrees
Beam Angle (90-270):	160.0 Degrees
Field Angle (0-180):	171.2 Degrees
Field Angle (90-270):	171.2 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		2.29	5.10
6.00		1.02	7.65
8.00		0.572	10.2
10.0		0.366	12.7
12.0		0.254	15.3
14.0		0.187	17.8
16.0		0.143	20.4



ISOFootcandle Plot

Mounting Height - 2 Feet



Grid Lines in Units of Mounting Height





IES "BUG" Rating
(Back Light, Uplight, Glare)
Per IES TM-15-11



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	13.9	8.2%
FM	(30-60)	36.3	21.5%
FH	(60-80)	30.4	18.0%
FVH	(80-90)	3.7	2.2%
BL	(0-30)	13.9	8.2%
BM	(30-60)	36.3	21.5%
BH	(60-80)	30.4	18.0%
BVH	(80-90)	3.7	2.2%
UL	(90-100)	0.3	0.2%
UH	(100-180)	0.3	0.2%
Total		169.1	100.0%
BUG Rating	B0 U1 G0		